

(X) Please replace the paragraph beginning on Page 3, line 7 with the following amended paragraph:

FIG. 1A-1 AND FIG. 1A-2 are flow diagrams of a method to predict the electromagnetic radiation produced by a computer system or data processing system. Figure 1B [1A] depicts a flow diagram of a prediction of the electromagnetic radiation for the frequency domain only.

(X) Please replace the paragraph beginning on Page 4, line 1 with the following amended paragraphs:

(X) Referring to Figure 1A-1, data from the first category, CPU information, is represented by logical step 101. Logical step 101 allows input of the CPU into a computer program. CPU information includes the horizontal and vertical distances from the heat sink to the CPU. CPU information also includes the distance from the CPU to the ground. Finally, CPU information includes the frequency range of the radiation noise emitted from the CPU and is denoted f_{hi} (frequency-high)- f_{low} (frequency low) The program will also consider a second set of parameters for a CPU. A second set of parameters allows the program to calculate the radiation produced by a single computer having two CPUs, sometimes referred to as a multiprocessor.

(X) Please replace the paragraph beginning on Page 7, line 4 with the following amended paragraphs:

(X) Referring again to Figure 1A-1, Event 104 determines whether capacitive coupling exists between the heat sink and central processing unit. Capacitive coupling represents the radiation noise propagated through electronic field energy. A heat sink with a large surface area will induce electronic noise through capacitive coupling with another source of noise, for example a clock, a central processing unit or a second CPU. Capacitance is proportional to surface area, therefore, a heat sink with a larger surface area stores more electrical energy and has a larger capacitance.

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Please replace the paragraph beginning on Page 8, line 21 with the following amended paragraphs:

Referring now to Figure 1A-2, if f_r is not found within the range defined by f_{cpu} , then the program proceeds to logical step 115. Logical step 115 determines if the amplitude of the electromagnetic field exceeds a predetermined level. (In one embodiment, the predetermined level is the maximum allowable level of radiation as permitted by a governing body.) If the amplitude exceeds the predetermined limit then the program accepts an adjustment to the eddy current manually input. After changing the eddy current according to a manual input the program also accepts a manual input into the separation of the fins, logical step 117.

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Please replace the paragraph beginning on Page 9, line 1 with the following amended paragraph:

Those of skill in the art will recognize that, based upon the teachings herein, several modifications may be made to the embodiments shown in Figure 1A-1, Figure 1A-2 and Figure 1B. For example, steps 104, 106 and 109 may be omitted as discussed below.

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Please replace the paragraph beginning on Page 9, line 7 with the following amended paragraph:

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An embodiment of the invention omits steps 104, 106 and 109 from the process. Current EMI test methods specify EMI levels in the frequency domain only. As described above, the invention may be used to determine if capacitive and inductive coupling exists. After determining if capacitive and inductive coupling exists the present invention may be practiced but limited to the frequency domain. (Analysis in the time domain is omitted.) As shown in Figure 1B, the process begins again with the same 2 sets of variables as shown previously in Figure 1A-1: cpu information, logical step 101 and heat sink fin geometry information, logical step 102.

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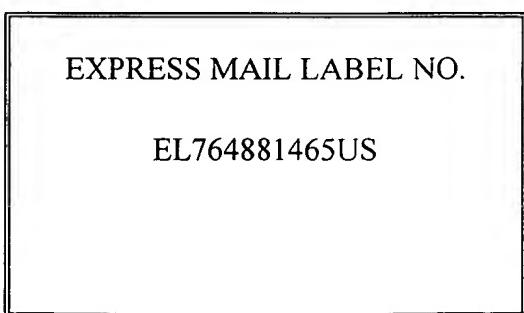
Please replace the paragraph beginning on Page 9, line 16 with the following amended paragraph:

Referring now to Figure 1B, fast Fourier transform (FFT) is represented by logical step 111 (previously shown in Figure 1A-1). In this embodiment, fast Fourier transfers data only from the time domain to the frequency domain. In this embodiment, the time domain analysis is omitted. The analysis is completed in the frequency domain only. After solving the transforming data using the fast Fourier transform, logical step 111, the confirms that the electromagnetic interference is at an acceptable level, logical step 112. If the electromagnetic interference is at an acceptable level, the process stops, logical step 130.

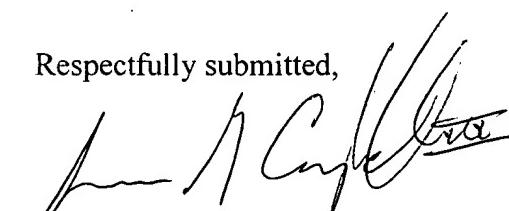
CONCLUSION

This response amends figure numbers in the specification. In response to a Notice to File Corrected Application Papers replacement figures have previously been submitted to the PTO. This replacement figures contain new figure numbers. Specifically, Figure 1A-1, 1A-2 and Figure 1B replace Figure 1 and 1A. This Preliminary amendment is filed to conform the figure numbers to the new figure. No new matter has been added. No claims have been added. No claims have been amended.

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.



Respectfully submitted,



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